July 29, 1960

Dr. Charles Phillips
Division of Physical Defense
Fort Detrick
Frederick, Maryland

Dear Charlie:

I was very pleased to receive and read the copy of the report of the NRC Advisory Committee on "New Principles for BW Aerosol Alarms." There are a number of intriguing ideas here, some of which we had, of course, arrived at independently in the Westex discussions and others which are novel and challenging. I hope you will be agreeable to having this report reproduced in the Space Sci[illegible]e Board Office for distribution to the members of the Exobiology Committee.

With reference to your own particular problem, it seems obvious that everything hinges on the collection of large samples of air from which the desired constituents can be collected and analy[illegible]. Had it occurred to you that it might be convenient to work with liquified air, from which for example bacteria might be concentrated by filtration? You might wish to put your alarm system in as an accessory to existing facilities for the production of liquid air as a matter of economy. I don't know the time factor that may be involved between the collection of atmospheric air and its condens[illegible]ion and liquifaction but this cannot be a very long interval.

I was especially interested in the idea mentioned on page 27 and originating with Roberts and Briton at Carnegie. We had seen some reports coming out of a medical research institute in Connecticut concerning the orientation of microscopic particles in electrostat[illegible] fields but have had some difficulty in reproducing the effect in our own casual experiments here. Do you know any more about this effect? I can write to Briton to see what more he might have to say about it.

Yours sincerely,

Joshua Lederberg